

## CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method comprising the steps of:  
 receiving a first data stream of multimedia data associated with a first protocol;  
 selecting a ~~first protocol from a plurality of available protocols~~first start code from a plurality of available start codes, the first start code indicative of a type of multimedia stream;  
 processing a first packet of the first data stream based on the first ~~test protocol~~start code  
 to determine a first processed result;  
 in response to determining the first processed result matches an expected result, parsing a second packet of the first data stream based on the first ~~protocol~~start code;  
~~generating a database based on parsing the second packet, the database comprising first information indicating a first property associated with the first data stream and second information different from the first indicating a second property associated with the first data stream, the second property different from the first.~~
  
2. (Currently Amended) The method as in Claim 1, wherein the first protocol is selected from the group consisting of Motion Picture Experts Group 2 (MPEG-2), DIRECTV[[®]], and Digital Versatile Disk (DVD) protocols.
  
3. (Currently Amended) The method as in Claim 1, further comprising:  
 storing a second portion of the first data stream in memory after the step of selecting the ~~first protocol~~start code.
  
4. (Previously Presented) The method as in Claim 3, wherein the second portion of the first data stream is received after the first portion of the first data stream.

5. (Currently Amended) The method as in Claim 3, ~~wherein the second portion of the first data stream includes the first portion of the first data stream~~1, further comprising: generating a database based on parsing the second packet, the database comprising first information indicating a first property associated with the first data stream and second information different from the first indicating a second property associated with the first data stream, the second property different from the first.

6. (Cancelled)

7. (Currently Amended) The method as in Claim ~~[[1]]~~5, wherein the first information comprises information indicating a network associated with the first data stream.

8. (Previously Presented) The method as in Claim 7, wherein the second information indicates multiplex information associated with the first data stream.

9. (Original) The method as in Claim 8, wherein multiplex information includes transport stream identifiers and program identifiers.

10. (Currently Amended) The method as in Claim ~~[[1]]~~5, wherein the first information indicates program information associated with the first data stream, the program information selected from the group consisting of: program numbers, program recovery clock identifiers, video data identifiers and audio data identifiers.

11. (Currently Amended) The method as in Claim ~~[[1]]~~5, wherein ~~[[t]]~~the first information comprises elementary stream information associated with the first data stream.

12. (Original) The method as in Claim 11, wherein the elementary stream information includes data stream types and elementary stream identifiers.

13. (Currently Amended) The method as in Claim ~~[[1]]~~5, wherein the first information comprises close captioning information.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

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41. (Cancelled)

42. (Cancelled)

43. (Cancelled)

44. (Cancelled)

45. (Cancelled)

46. (Currently Amended) A device comprising,  
a transport stream demultiplexor comprising:

an input configured to receive data first data stream, wherein the first data stream ~~includes is associated with~~ a first protocol and further wherein the first protocol is unknown to the device upon initial receipt of the first data stream;

a microcode engine configured to:

~~select first start code from a plurality of available start codes, the first start code indicative of a type of multimedia stream; a first protocol from a plurality of available protocols;~~

~~process a first packet of the first data stream based on the first test protocol; start code to determine a first processed result; and~~

~~in response to determining the first processed result matches an expected result, parse a second packet of the first data stream based on the first protocol; start code; and~~

~~a memory configured to store a database based on parsing the second packet, the database comprising first information indicating a first property associated with the first data stream and second information different from the first indicating a second property associated with the first data stream, the second property different from the first.~~

47. (Currently Amended) The device of claim 46, ~~wherein the the memory is configured to store a second portion of the first data stream after the microcode engine determines the first protocol;~~ further comprising a memory configured to store a database based on parsing the second packet, the database comprising first information indicating a first property associated with the first data stream and second information different from the first indicating a second property associated with the first data stream, the second property different from the first.

48. (Currently Amended) The device of Claim 47, wherein the memory is configured to store a second portion of the first data stream after the microcode engine selects the first start code and wherein the second portion of the first data stream is received at the input after the first portion of the first data stream.

49. (Currently Amended) The device of Claim 47, wherein the memory is configured to store a second portion of the first data stream after the microcode engine selects the first start code and wherein the second portion of the first data stream includes the first portion of the first data stream.

50. (Currently Amended) The device of Claim 47, wherein the device further comprises a stream engine coupled to an output of the transport stream demultiplexor, ~~the stream engine configured to generate a database based on the second portion of the first data stream.~~

51. (Previously Presented) The device of Claim 50, wherein the stream engine is further configured to parse the second portion of the first data stream to determine a first set of descriptors associated with the first data stream and store the first set of descriptors in the first database.

52. (Previously Presented) The device of Claim 51, wherein the first set of descriptors includes a descriptor selected from the group consisting of a network identifier, multiplex information, and program information.

53. (Previously Presented) The device of Claim 52, wherein multiplex information includes transport stream identifiers and program identifiers.

54. (Previously Presented) The device of Claim 52, wherein the program information includes program numbers, program recovery clock identifiers, video data identifiers and audio data identifiers.

55. (Previously Presented) The device of Claim 52, wherein the set of descriptors further includes elementary stream information and closed captioning information.

56. (Previously Presented) The device of Claim 55, wherein the elementary stream information includes data stream types and elementary stream identifiers.

57. (Previously Presented) The device of Claim 47, wherein the memory includes a frame buffer.

58. (Cancelled)

59. (Currently Amended) The method of claim 1, further comprising:

in response to determining the first processed result does not match the expected result:

selecting a second ~~protocol from the plurality of available protocols~~start code from the plurality of available start codes;

processing the first packet based on the second ~~test-protocol~~start code to determine a second processed result; and

in response to determining the second processed result matches an expected result, parsing a second packet of the first data stream based on the second ~~protocol~~start code.

60. (Cancelled)

61. (Cancelled)

62. (Cancelled)

63. (Currently Amended) The device of claim 46, wherein the microcode engine is configured to:

in response to determining the first processed result does not match the expected result:

select a second ~~protocol~~start code from the plurality of available ~~protocols~~start codes;

process the first packet based on the second ~~test-protocol~~start code to determine a second processed result; and

in response to determining the second processed result matches an expected result, parse a second packet of the first data stream based on the second protocol.

64. (Cancelled)

65. (Cancelled)

66. (Cancelled)

67. (Currently Amended) A method, comprising:

receiving a first data stream of multimedia data;

~~selecting a first protocol from a plurality of available protocols~~ selecting a first set of physical interface parameters from a plurality of available sets of physical interface parameters;

processing a first packet of the first data stream based on the first ~~test protocol~~ set of physical interface parameters to determine a first processed result;

~~storing a first set of descriptors based on processing the first packet in a first database, a first descriptor of the first set of descriptors identifying a first property of the first data stream and a second descriptor of the first set of descriptors identifying a second property of the data stream;~~ and

in response to determining the first processed result matches an expected result, parsing a second packet of the first data stream based on the first ~~protocol~~ set of physical interface parameters.

68. (Currently Amended) The method as in Claim 67, further comprising storing in a first database a set of descriptors based on processing the first packet, a first descriptor of the first set of descriptors identifying a first property of the first data stream and a second descriptor of the first set of descriptors identifying a second property of the data stream, wherein the first set of descriptors includes a descriptor selected from the group consisting of a network identifier, multiplex information, and program information.

69. (Previously Presented) The method as in Claim 68, wherein multiplex information includes transport stream identifiers and program identifiers.



70. (Previously Presented) The method as in Claim 68, wherein the program information includes program numbers, program recovery clock identifiers, video data identifiers and audio data identifiers.

71. (Previously Presented) The method as in Claim 68, wherein the set of descriptors further includes elementary stream information and closed captioning information.

72. (New) A method, comprising:

receiving a data stream of multimedia data;

selecting a particular packet length from a plurality of available packet lengths;

processing a first packet of the data stream based on the packet length to determine a processed result; and

in response to determining the processed result matches an expected result, parsing a second packet of the first data stream based on the particular packet length.

73. (New) The method as in Claim 72, further comprising storing a set of descriptors based on processing the packet in a database, a first descriptor of the set of descriptors identifying a first property of the first data stream and a second descriptor of the set of descriptors identifying a second property of the data stream, wherein the set of descriptors includes a descriptor selected from the group consisting of a network identifier, multiplex information, and program information.

74. (New) The method as in Claim 73, wherein multiplex information includes transport stream identifiers and program identifiers.

75. (New) The method as in Claim 73, wherein the program information includes program numbers, program recovery clock identifiers, video data identifiers and audio data identifiers.